

Listing of Claims

1-24. (Cancelled)

25. (Previously Presented) A method for manufacturing an electronic module including at least two insulating sheets defining its external faces, at least one element having a face flushing with an external surface of the module and an electronic circuit embedded between the two insulating sheets, comprising the steps of:

- placing at least one first insulating sheet including one window intended to lodge an element;
- inserting the element into the window of the first insulating sheet;
- stacking an adhesive protection film extending at least over a region between the element and the edges of said window, said adhesive protection film being coated or made up of an adhesive substance activated either at room temperature, or under the effect of heat and/or pressure, maintains the element in said window;
- placing an electronic circuit in an area close to the window containing the element;
- providing filling material on the set formed by the first insulating sheet, the element, the adhesive protection film and the electronic circuit;
- stacking a second insulating sheet on the filling material; and

- pressing or laminating the assembly previously formed, the filling material forming a layer compensating the surface relief due to the assembling of the electronic module.

26. (Previously Presented) The method of claim 25 wherein the outline of the window of the first insulating sheet adapts to the outline of the element.

27. (Previously Presented) The method of claim 25, wherein the element, lodged in the window, is thicker than the first insulating sheet, and in that several insulating sheets are stacked, with the outlines of the windows of each sheet coinciding, and the total thickness of the stack being substantially equal to the thickness of the element lodged in the windows of each sheet, the adhesive protection film being placed on the stack by covering at least the outline of the window of the last sheet of the stack.

28. (Previously Presented) The method of claim 25, wherein the element, lodged in the window, is thicker than the first insulating sheet and in that the adhesive protection film is placed on the element in such a way as to also extend over the outline of the window of said first sheet, supplementary sheets each provided with a window are stacked, the outline of the windows of each sheet coinciding with the outline of the window of the first sheet, and the thickness of the assembly of sheets is substantially equal to the thickness of the element.

29. (Previously Presented) The method of claim 25, wherein the element inserted in the window of the first insulating sheet is made up of an electronic component connected to the electronic circuit.

30. (Previously Presented) The method of claim 29, the element having a first face flushing with the external surface of the module and a second face presenting conductive connection areas, comprising a step of connection of the conductive connection areas of the element to the electronic circuit succeeding the step of placement of the electronic circuit.

31. (Previously Presented) The method of claim 29, comprising, prior providing the filling material , a step of placing conductive connection areas on the internal face of the element opposed to the face flushing with the external surface of the module, said conductive connections areas being than connected to the electronic circuit.

32. (Previously Presented) The method of claim 29, wherein the electronic circuit includes connections ending on the internal face of the element opposed to the face flushing with the external face of the module.

33. (Previously Presented) The method of claim 29, wherein, prior to the application of the adhesive protection film on the assembly formed by the first insulating sheet and the element, the electronic circuit is placed on said adhesive protection film and the assembly formed by the protection film and the electronic circuit is applied onto the assembly formed by the first insulating sheet and the element.

34. (Previously Presented) The method of claim 29 wherein the adhesive protection film includes at least one window facing the conductive connection areas of the element.

35. (Previously Presented) The method of claim 25, wherein the element inserted in the window of the first insulating sheet is constituted by an inert core intended to be removed at the end of the module manufacturing process, leaving a cavity having the shape of the core previously inserted on one of the faces of said module, said cavity being used for a subsequent insertion of a fixed or removable electronic component.

36. (Previously Presented) The method of claim 35 comprising, prior providing the filling material, a step of placing conductive connection areas on the internal face of the element opposed to the face flushing with the external surface of the module, said conductive connection areas being then connected to the electronic circuit.

37. (Previously Presented) The method of claim 35, wherein the electronic circuit includes connections ending on the internal face of the element opposed to the face flushing with the external face of the module, said connections forming conductive connection areas at the bottom of the cavity when the element is removed.

38. (Previously Presented) The method of claim 37, wherein the adhesive protection film includes at least one window facing the connection areas of the element.

39. (Previously Presented) The method of claim 25, wherein the first insulating sheet includes a cavity, the outline of said cavity adapting to the outline of the electronic circuit placed in said cavity.

40. (Previously Presented) An electronic module, comprising:

- an assembly of at least two insulating sheets and at least one element, a first insulating sheet defining one of the faces of the module including at least one window in which the element is lodged, one face of said element flushing with the external surface of said first sheet the second insulating sheet constituting the other face of the module;
- an electronic circuit embedded between the two insulating sheets in a layer of filling material; and
- an adhesive protection film extending over a region covering at least the outline of the window in which is lodged the element and situated between the first insulating sheet and the layer of filling material.

41. (Previously Presented) The electronic module of claim 40, wherein the internal face of the element opposed to the face flushing with the external surface of the module includes conductive connection areas connected to the electronic circuit.

42. (Previously Presented) The electronic module of claim 41, wherein the adhesive protection film includes at least one window facing the conductive connection areas of the element,

43. (Previously Presented) The electronic module of claim 42, wherein the external faces of the insulating sheets constituting the external faces of the module include a decoration or a marking.

44. (Previously Presented) The electronic module of claim 40, wherein the element inserted in the window of the first insulating sheet is constituted by an inert core intended to be removed leaving a cavity having the shape of the core on one of the faces of said module, said cavity being made to be used for the subsequent insertion of a fixed or removable electronic component.

45. (Previously Presented) The electronic module of claim 44, wherein the bottom of the resulting cavity, after the element has been removed, includes conductive connection areas connected to the electronic circuit.

46. (Previously Presented) The electronic module of claim 43, wherein the element is constituted by an electronic component.